

Method And Apparatus For Remote Installation Of An Operating System Over A Network Connection

Accordingly, we claim:

1 1. A method of replacing a first operating system executing on a computer
2 having a storage, the storage having at least first and second bootable regions,
3 wherein the first operating system was booted from the first bootable region, the
4 method comprising the steps of:

5 remotely re-booting the computer to boot a copy of the first operating
6 system located on the second bootable region;

7 removing the first operating system from the first bootable region;

8 copying a second operating system onto the first bootable region; and

9 remotely re-booting the computer to boot the second operating system
10 from the first bootable region.

1 2. The method as described in Claim 1 wherein the second bootable region
2 has first and second sub-regions, wherein the copy of the first operating system
3 is located in the first sub-region of the second bootable region and the second
4 operating system is copied onto the first bootable region from the second sub-
5 region of the second bootable region.

1 3. The method as described in Claim 2 further including the step of delivering
2 the copy of the first operating system and the second operating system to the
3 computer.

1 4. The method as described in Claim 3 wherein the copy of the first operating
2 system is delivered to the computer in a compressed format.

1 5. The method as described in Claim 3 wherein the second operating system
2 is delivered to the computer in a compressed format.

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1 6. The method as described in Claim 4, the method further comprising the
2 step of decompressing the copy of the first operating system prior to copying a
3 second operating system onto the first bootable region.

1 7. A method of replacing a first operating system executing on a server
2 having first and second storage disks, wherein the first operating system is
3 booted from the first storage disk, comprising the steps of:

4 receiving, from a remote location, (i) a packed version of the first operating
5 system and (ii) a packed version of a second operating system desired to be
6 installed on the server;

7 unpacking the first operating system onto a first storage partition of the
8 second disk;

9 storing the packed version of the second operating system onto a second
10 storage partition of the second disk;

11 remotely re-booting the server to boot the first operating system from the
12 first storage partition of the second disk;

13 removing the first operating system from the first disk;

14 unpacking the second operating system onto a partition on the first disk;

15 and

16 remotely re-booting the server to boot the second operating system from
17 the partition on the first disk.

1 8. The method as described in Claim 7 wherein step remotely re-booting the
2 server to boot the first operating system comprises:

3 modifying a boot loader of the server to boot the first operating system
4 from the first storage partition of the second disk.

1 9. The method as described in Claim 8 wherein step of remotely re-booting
2 the server to boot the second operating system comprises:
3 reconfiguring the boot loader to boot the second operating system from
4 the partition on the first disk.

1 10. The method as described in Claim 7 wherein the packed version of the
2 first operating system is encrypted.

1 11. The method as described in Claim 10, further comprising of decrypting the
2 packed version prior to the step of:
3 unpacking the first operating system onto a first storage partition.

1 12. The method as described in Claim 7 wherein the step of removing the first
2 operating system from the first disk removes any previously used partitions on
3 the first disk.

1 13. The method as described in Claim 7, further comprising:
2 preserving network configuration data used by the first operating system
3 to enable the server executing the second operating system following the step of
4 rebooting the server to operate under the second operating system to be reached
5 at a network address used by the server executing the first operating system.

1 14. The method as described in Claim 7 further comprising:
2 preserving security data used to control access to the server executing the
3 first operating system to enable the server executing the second operating
4 system following step of rebooting the server to operate under the second
5 operating system to be accessed using at least one security setting used by the
6 server executing the first operating system.

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1 15. The method as described in Claim 7 wherein the packed versions of the
2 first operating system and the second operating system are received over a
3 content delivery network.

1 16. The method as described in Claim 7 wherein the first operating system is
2 a Linux-based operating system and the second operating system is a Windows-
3 based operating system, or vice-versa.

1 17. A method of replacing a first operating system executing on a computer
2 having a storage, the storage having at least first and second bootable regions,
3 wherein the first operating system was booted from the first bootable region,
4 comprising the steps of:

5 remotely re-booting the computer to boot a copy of the second operating
6 system located on the second bootable region;

7 removing the first operating system from the first bootable region;

8 copying a third operating system onto a bootable region other than the
9 second bootable region; and

10 remotely re-booting the computer to boot the third operating system from
11 the bootable region other than the second bootable region.

1 18. In a content delivery network having a set of content servers for caching
2 and serving content on behalf of participating content providers, a method of
3 replacing a first operating system executing on a content server having first and
4 second storage disks, wherein the first operating system is booted from the first
5 storage disk, comprising the steps of:

6 (a) delivering, over the content delivery network: (i) a packed version of
7 the first operating system and (ii) a packed version of a second operating system
8 desired to be installed on the content server;

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- 9 (b) unpacking the first operating system onto a first storage partition of
10 the second disk;
- 11 (c) storing the packed version of the second operating system onto a
12 second storage partition of the second disk;
- 13 (d) remotely re-booting the content server to boot the first operating
14 system from the first storage partition of the second disk;
- 15 (e) removing the first operating system from the first disk;
- 16 (f) unpacking the second operating system onto a partition on the first
17 disk; and
- 18 (g) remotely re-booting the content server to boot the second operating
19 system from the partition on the first disk.

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